## INTERNATIONAL SEARCH REPORT

internation pplication No PCT/EP 03/12164

|  |   | •                      | FU1/EF U3/  | 12104           |  |  |  |  |  |  |
|--|---|------------------------|---|-----------------|--|--|--|--|--|--|
| A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C10G2/00   |   |                        |   |                 |  |  |  |  |  |  |
|  |   |                        |   |                 |  |  |  |  |  |  |
| According to International Patent Classification (IPC) arts both notional algoritistics and IPC                            |   |                        |   |                 |  |  |  |  |  |  |
| According to International Patent Classification (IPC) or to both national classification and IPC  B. FIELDS SEARCHED      |   |                        |   |                 |  |  |  |  |  |  |
| Minimum do   | cumentation searched (classification system followed by classification  | on symbols)            |   |                 |  |  |  |  |  |  |
| IPC 7  | C10G  |                        |   |                 |  |  |  |  |  |  |
|  |   |                        |   |                 |  |  |  |  |  |  |
| Documentat   | ion searched other than minimum documentation to the extent that s  | uch documents are inci | luded in the fields sea                               | arched          |  |  |  |  |  |  |
|  |   |                        |   |                 |  |  |  |  |  |  |
| Electronic data base consulted during the international search (name of data base and, where practical, search terms used) |   |                        |   |                 |  |  |  |  |  |  |
| EPO-Internal, WPI Data, PAJ  |   |                        |   |                 |  |  |  |  |  |  |
|  |   |                        |   |                 |  |  |  |  |  |  |
|  |   |                        |   |                 |  |  |  |  |  |  |
|  | ENTS CONSIDERED TO BE RELEVANT  |                        |   |                 |  |  |  |  |  |  |
| Category °   | Citation of document, with indication, where appropriate, of the reli   |                        | Relevant to daim No.                                  |                 |  |  |  |  |  |  |
| A  | EP 0 247 679 A (SHELL INT RESEARCH)   |                        |   | 1,11            |  |  |  |  |  |  |
|  | 2 December 1987 (1987-12-02)  | ,                      | ļ   | 1,11            |  |  |  |  |  |  |
|  | claims 1,3  |                        | 1   |                 |  |  |  |  |  |  |
| A  | US 4 632 941 A (COUGHLIN PETER K)   | )                      |   | 1-3,5,8,        |  |  |  |  |  |  |
|  | 30 December 1986 (1986-12-30)   |                        | 9   |                 |  |  |  |  |  |  |
| !  | cited in the application  |                        |   |                 |  |  |  |  |  |  |
|  | claims 1,10-12<br>  column 4, line 31 - line 51   |                        | 1   |                 |  |  |  |  |  |  |
|  | column 5, line 54 - line 57   |                        |   |                 |  |  |  |  |  |  |
|  | <del></del>   |                        |   |                 |  |  |  |  |  |  |
|  |   |                        |   |                 |  |  |  |  |  |  |
|  |   |                        | ļ   |                 |  |  |  |  |  |  |
|  |   |                        |   |                 |  |  |  |  |  |  |
| [  |   |                        | ì   |                 |  |  |  |  |  |  |
|  |   |                        | <b>)</b> ,  |                 |  |  |  |  |  |  |
|  |   |                        | İ   |                 |  |  |  |  |  |  |
|  |   |                        |   |                 |  |  |  |  |  |  |
| Furth  | her documents are listed in the continuation of box C.  | X Patent family        | members are listed i                                  | n annex.        |  |  |  |  |  |  |
| ° Special categories of cited documents :  "T° later document published after the international filing date                |   |                        |   |                 |  |  |  |  |  |  |
| "A" docume consid  | ent defining the general state of the art which is not<br>lered to be of particular relevance   |                        | nd not in conflict with t<br>and the principle or the |                 |  |  |  |  |  |  |
| "E' earlier document but published on or after the international "X" docu  |   |                        | ular relevance; the cl                                | almed invention |  |  |  |  |  |  |
| "L" document which may throw doubts on priority claim(s) or involve an inventive step when the document is taken alone     |   |                        |   |                 |  |  |  |  |  |  |
| diation  | "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document referring to an oral disclosure, use, exhibition or |                        |   |                 |  |  |  |  |  |  |
| otner r  | s to a person skilled   |                        |   |                 |  |  |  |  |  |  |
| *P* docume<br>later th   | amily   |                        |   |                 |  |  |  |  |  |  |
| Date of the  | actual completion of the International search   | Date of mailing of     | the international sea                                 | rch report      |  |  |  |  |  |  |
| 1:   | 8 February 2004   | 25/02/2                | 2004  |                 |  |  |  |  |  |  |
|  | nailing address of the ISA  | Authorized officer     |   |                 |  |  |  |  |  |  |
|  | European Patent Office, P.B. 5818 Patentiaan 2<br>NL - 2280 HV Rijswijk   |                        |   |                 |  |  |  |  |  |  |
|  | Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,<br>Fecc (+31-70) 340-3016  | De Herdt, O            |   |                 |  |  |  |  |  |  |

## INTEGRATIONAL SEARCH REPORT

Information on patent family members

enternation Poplication No PCT/EP 03/12164

| Patent document<br>cited in search report | ļ | Publication date |    | Patent family<br>member(s) | Publication date |
|---|---|------------------|----|----------------------------|------------------|
| EP 0247679                                | Α | 02-12-1987       | AU | 590419 B2                  | 02-11-1989       |
|   |   |                  | AU | 7344987 A                  | 03-12-1987       |
|   |   |                  | BR | 8702719 A                  | 01-03-1988       |
|   |   |                  | CA | 1290311 C                  | 08-10-1991       |
|   |   |                  | CN | 87103825 A ,B              | 16-12-1987       |
|   |   |                  | CS | 8703849 A2´                | 12-09-1990       |
|   |   |                  | DD | 263786 A5                  | 11-01-1989       |
|   |   | •                | DE | 3761242 D1                 | 01-02-1990       |
|   |   |                  | ΕP | 0247679 A2                 | 02-12-1987       |
|   |   |                  | FΙ | 872348 A ,B,               | 01-12-1987       |
|   |   |                  | HU | 48487 A2´´                 | 28-06-1989       |
|   |   |                  | IN | 169798 A1                  | 21-12-1991       |
|   |   |                  | JP | 2583423 B2                 | 19-02-1997       |
|   |   |                  | JP | 62298453 A                 | 25-12-1987       |
|   |   |                  | KR | 9509001 B1                 | 10-08-1995       |
|   |   | •                | NL | 8701243 A ,B,              | 16-12-1987       |
|   |   |                  | NZ | 220462 A                   | 27-07-1989       |
|   |   |                  | SU | 1641184 A3                 | 07-04-1991       |
|   |   |                  | TR | 22790 A                    | 19-07-1988       |
|   |   |                  | US | 4857170 A                  | 15-08-1989       |
|   |   |                  | US | 4916096 A                  | 10-04-1990       |
|   |   |                  | ZA | 8703827 A                  | 27-04-1988       |
| US 4632941                                | Α | 30-12-1986       | US | 4579830 A                  | 01-04-1986       |
|   |   |                  | ΑT | 38825 T                    | 15-12-1988       |
|   |   |                  | AU | 585873 B2                  | 29-06-1989       |
|   |   |                  | AU | 4549785 A                  | 24-01-1986       |
|   |   |                  | BR | 8506802 A                  | 25-11-1986       |
|   |   |                  | CA | 1241630 A1                 | 06-09-1988       |
|   |   |                  | DΕ | 3566394 D1                 | 29-12-1988       |
|   |   |                  | ΕP | 0187818 A1                 | 23-07-1986       |
|   |   |                  | JP | 61502545 T                 | 06-11-1986       |
|   |   |                  | WO | 8600296 A1                 | 16-01-1986       |
|   |   |                  | ZA | 8504829 A                  | 26-02-1986       |